

LIQUOR BURNERS — ENVIRONMENTAL MONITORING

8007. Mr M.J. Cowper to the Minister for Environment

Given that liquor burners have been banned across the world, can the Minister please advise:

- (a) what independent environmental monitoring is being conducted on the following liquor burners in Western Australia:
  - (i) Kwinana Refinery;
  - (ii) Wagerup Refinery; and
  - (iii) Worsley Alumina Refinery;
- (b) what makes these liquor burners more efficient and subsequently safe, compared to those banned in the United States, Asia and Europe;
- (c) what questions did the Minister ask the Ministers for Health, State Development and Mines and Petroleum prior to approving a time extension of the expansion at Wagerup Refinery;
- (d) in increasing the allowable level of noise emissions from the Wagerup refinery, how many noise affected properties will Alcoa need to purchase to satisfy the requirement of the license; and
- (e) what will happen if no additional properties are purchased by Alcoa?

Mr W.R. MARMION replied:

The Department of Environment and Conservation (DEC) has advised that it is not aware that liquor burners at alumina refineries have been banned across the world.

- (a) (i) DEC requires Alcoa to monitor emissions from the liquor burner at the Kwinana Refinery as a condition of its licence issued under the Environmental Protection Act 1986. Air emissions monitoring is conducted by a National Association of Testing Authorities (NATA) accredited consultant, in accordance with United States Environmental Protection Agency (USEPA) methodology.

DEC requires Alcoa to monitor the liquor burner emissions quarterly for particulates, nitrogen oxides and sulfur dioxide, and continuously for temperature and carbon monoxide, which is indicative of volatile organic compounds (VOC) destruction.

A Source Emissions Characterisation Plan and Source Emissions Verification Plan have been completed for Alcoa's Kwinana Refinery, as required by Ministerial Statement 000678 issued on 23 June 2005. These plans have been completed by NATA accredited air emission consultants contracted by Alcoa.
- (ii) DEC requires Alcoa to monitor emissions from the liquor burner at the Wagerup Refinery through its licence issued under the Environmental Protection Act. Air emissions monitoring is conducted by a NATA accredited consultant in accordance with USEPA methodology. DEC requires Alcoa to monitor the liquor burner emissions quarterly for nitrogen oxides, sulfur oxides and VOCs, and continuously for particulates, temperature and carbon monoxide.
- (iii) DEC requires BHP Worsley Alumina Pty Ltd to monitor emissions from the liquor burner at the Worsley Refinery through its licence issued under the Environmental Protection Act. Air emissions monitoring is conducted by a NATA accredited consultant in accordance with USEPA methodology. DEC requires Alcoa to monitor the liquor burner emissions quarterly for nitrogen oxides, carbon monoxide and VOCs, including acetaldehyde, formaldehyde and benzene.
- (b) The liquor burners at these refineries operate with best practice pollution control equipment, including a regenerative thermal oxidiser (RTO). The RTO achieves a 98% reduction in VOCs. DEC has assessed the air emissions from each liquor burner and determined they are environmentally acceptable.
- (c) As required by condition 4 — 2 of Statement 000728 (14 September 2006) in relation to consultation with relevant Government authorities and stakeholders, I wrote to the Ministers for Health, State Development, and Mines and Petroleum on 12 August 2011 advising them of Alcoa's application and seeking their comments.

- (d)–(e) The Environmental Protection (Wagerup Alumina Refinery Noise Emissions) Approval 2012, granted under the Environmental Protection (Noise) Regulations 1997, does not specify a number of properties that must be purchased within the two-year life of the approval.

This approval sets noise limits at several reference locations, some of which are at or adjacent to residential locations surrounding the refinery. The approval is based on Alcoa's commitment to not increase its noise emissions if the expansion proceeds. Should Alcoa be unable to meet its conditions of approval, it would need to submit another application under regulation 17 of the Noise Regulations for Ministerial consideration.